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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/647,924

08/25/2003

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P/55-6

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06/16/2010

EXAMINER

BAYARD, EMMANUEL

ART UNIT

PAPER NUMBER

2611

MAIL DATE

DELIVERY MODE

06/16/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/647,924	<b>Applicant(s)</b> HARDMAN, CLAYTON M.	
	<b>Examiner</b> Emmanuel Bayard	<b>Art Unit</b> 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 7-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                        | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This is in response to amendment filed on 2/21/10 in which claims 1-5 and 7-10 are pending. The applicant's arguments have been fully considered but they are not persuasive enough. Therefore this case is made final (see Examiner's response to arguments below).

#### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 7, 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akram et al U.S. Patent No 6,868,081 B1 in view of Shah et al U.S. Pub No 20030161295.

As per claim 1, Akram et al teaches a system that provides a user of a single analog line multiple uses of said line comprising; a modem (see fig.2 element 210) connected to a fixed logic system which multiplexes or demultiplexes data (see fig.2 element 220); said modem compressing a signal traveling through said analog line (see fig.2 element 211 and col.5, lines 15-21) and ; said modem providing simultaneous transmission of two, or more, speech or data calls (see abstract and col.1, lines 20-45).

However Akram does not teach wherein said simultaneous transmission is accomplished by compressing conventional analog voice traffic to occupy less bandwidth.

Shah et al teaches compressing conventional analog voice traffic to occupy less bandwidth (see paragraph [0005]).

It would have been obvious to one of ordinary skill in the art to implement the teaching of Shah into Akram as to reduce network traffic by reducing the number of actual bits required to represent a larger input sequence therefore enhancing the performance or capacity of a file system.

As per claim 7, Akram and Shah et al in combination would teach further comprising a speech compression algorithm requiring between about 5.6 to 6.4 kbps of bandwidth as to reduce network traffic by reducing the number of actual bits required to represent a larger input sequence therefore enhancing the performance or capacity of a file system.

As per claim 9, Akram and Shah et al in combination would teach wherein said system is connected to a copper line (see Akram col.1, line 51) by a COTS modem as to reduce network traffic by reducing the number of actual bits required to represent a larger input sequence therefore enhancing the performance or capacity of a file system

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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2. Claims 2, 4-5, 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akram et al U.S. Patent No 6,868,081 B1 in view of Shah et al U.S. Pub No 20030161295 and in further view of Staples et al U.S. Patent No 6,301,339 B1.

As per claim 2 Akram et al and Shah in combination teach all the feature of the claimed invention except wherein said modem is programmable.

Staples et al teaches wherein said modem is programmable (see col.13, lines 10-15 and col.16, line 66-col.17, line 10).

It would have been obvious to one of ordinary skill in the art to implement the teaching of Staples into Akram and Shah et al as store program instructions and data executed by the processor as taught by Staples (see col.16, lines 2-6).

As per claim 4, Akram, Shah and Staples et al in combination would teach wherein said system is reprogrammed as needed as to accurately store all the data calls forwarded either from the user's office telephone or from the user's home telephone.

As per claim 5, Akram, Shah and Staples et al in combination would teach wherein said modem is downloaded on analog lines, cable, satellite and fiber lines (see Staples col.7, lines 14-18) as to facilitate the communication of data between two or more communications devices.

As per claim 8, Akram, Shah and Staples et al in combination would teach wherein said modem further comprises field programmable gate array as store program instructions and data executed by the processor as taught by Staples (see col.16, lines 2-6).

As per claim 10, Akram, Shah and Staples et al in combination would teach et al in combination would teach wherein said system comprises two modems, one at each end of an analog line; a first modem compresses and multiplexes data at a source end of said line; and a second modem demultiplexes and expands data at an exchange end of a copper line (see Staples fig.2 and col.7, lines 56-65) as to facilitate the communication of data between two or more communications devices.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable Akram et al U.S.

Patent No 6,868,081 B1 in view of Shah et al U.S. Pub No 20030161295 and in further view of Bowen U.S. Pub no 2002/0100029 A1

As per claim 3, Akram et al and Shah in combination teach all the feature of the claimed invention except wherein said modem incorporates Handel-C.

4. Bowen teaches wherein said modem incorporates Handel-C (see fig.6 element 604 and page 1 [0009]).

5. It would have been obvious to one of ordinary skill in the art to implement the teaching of Bowen into Akram and Shah as to enable a software or hardware engineer

to target directly FPGAs in similar fashion to classical microprocessor cross-compiler development tools as taught by Bowen (see page 1[0009]).

***Response to Arguments***

6. Applicant's arguments filed 2/21/10 have been fully considered but they are not persuasive.

7. In page 3, paragraph 2 of the response, applicant asserts that the combination of Shah and Akram is not obvious over claim 1.

8. Examiner respectfully disagrees.

9. In response to applicant's argument that **Shah is not useful to Akram**, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

10. In page 4, paragraph 1 of the response, applicants asserts that the combination of Shah and Akram is not obvious to teach a speech compression between about 5.6-6.4 kbps.

11. Examiner respectfully disagrees.

12. Akram teaches a compressed voice call between 8 and 16 kbps. Although Akram teaching does not fall within 5.6 to 6.4 kbps, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined

teachings of the references would have suggested to those of ordinary skill in the art.

See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Therefore applicant arguments are moot and this claim stands rejected as stated above.

13. As regard to claims 2, 4-5, 8-10 , applicant asserts Akram does not even teach the use of memory which could be used to program, reprogram or store data calls.

14. Examiner respectfully disagrees.

15. In fact Akram does teach the use of memory (see Akram col.5, lines 28-30, 54-57). Therefore applicant arguments are moot and this claim stands rejected as stated above.

16. As regard to claim 3, applicant asserts there is no reason to combine with the teaching of Akram and Shah.

17. Examiner respectfully disagrees.

18. In response to applicant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, Bowen teaches wherein said modem incorporates Handel-C (see fig.6 element 604 and page 1 [0009]) to enable a software or hardware engineer to target directly FPGAs in



similar fashion to classical microprocessor cross-compiler development tools (see page 1[0009]).

### ***Conclusion***

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Bayard whose telephone number is 571 272 3016. The examiner can normally be reached on Monday-Friday (7:Am-4:30PM) Alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571 272 3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

6/16/2010

Emmanuel Bayard  
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